

## **REMARKS**

### **Status of the Claims**

In response to the Restriction Requirement mailed December 11, 2008, Applicants elected claims of Species I. Claims 77-80, 85-92, and 97-100 are pending in the application. In the Office Action, claims 97-100 were mistakenly identified as withdrawn. Claims 77-80 and 85-92 are rejected under 35 USC § 112, second paragraph, as allegedly indefinite. Claims 77-80 and 85-92 are rejected under 35 USC § 102(b) as allegedly anticipated by a personal computer. In this Amendment, Applicants amend claims 77, 85, 89 and 97. Support for the amendments can be found at least at paragraph 0055 of the specification, in reference to published application No. 2004/0158163. Upon entry of this Amendment, claims 77-80, 85-92, and 97-100 will be presented for examination.

### **35 USC § 112 Rejection of Claims 77-80 and 85-92:**

Claims 77-80 and 85-92 are rejected in the Office Action under 35 USC § 112, second paragraph, as allegedly failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. In particular, at page 2 of the Office Action, the Examiner argues that “one cannot discern what the scope of the claim is” from the recitation of “memory means” in the claims. Applicants respectfully traverse the rejection.

For a claim to be indefinite under 35 U.S.C. § 112, second paragraph, it must be determined that one of ordinary skill in the art, in view of the prior art and status of the art, would not be reasonably apprised of the scope of the invention. (See MPEP 2173.05(b).)

Applicants submit that one of ordinary skill in the art would understand what memory means comprises in relation to a computer system, particularly with reference to paragraph 0055, and would be reasonably apprised of the scope of the invention. Without agreeing with the Examiner and for the purpose of advancing prosecution, Applicants have amended claims 77, 85, 89 and 97 following the Examiner’s suggestions in regards to the 35 USC § 102 rejection. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 77-80 and 85-92 under 35 USC § 112, second paragraph.

35 USC § 102 Rejection of Claims 77-80 and 85-92:

Claims 77-80 and 85-92 are rejected in the Office Action under 35 USC § 102(b) as allegedly anticipated by a personal computer. In particular and at page 3 of the Office Action, the Examiner argues, “Any personal computer would be capable of storing such a program and executing the calculations.” Applicants respectfully traverse the rejection.

For a claim to be rejected under 35 USC § 102, each and every element of the claim, and the claim as a whole must be disclosed by the single prior art reference. Applicants submit that any personal computer does not disclose each and every element of Applicants’ independent claims 77, 85, 89 and 97.

To Applicants’ knowledge, any personal computer is not configured to determine a dynamical property of the systemic or pulmonary arterial tree. Any personal computer is not configured to accept an input representing a measurement of a signal indicative of cardiovascular system activity over a plurality of cardiac cycles. Any personal computer is not configured to obtain a relationship between the timing of a cardiac contraction and the evolution of the signal over a time period greater than that of a single cardiac cycle by analyzing the signal over a plurality of cardiac cycles, and to use the relationship to determine the dynamical property. A personal computer must be altered or adapted to arrive at Applicants’ claimed computer system. Therefore, a personal computer fails to disclose each and every element of Applicants’ claims.

As set forth above, the prior art cited by the Examiner fails to disclose each and every element of Applicants’ independent claims 77, 85, 89 and 97. For at least these reasons, Applicants submit that claims 77, 85, 89 and 97 contain patentable matter. Claims 78-80, 86-88, 90-92, and 98-100 depend from claims 77, 85, 89 and 97, and arguably contain patentable matter for at least the same reasons. Therefore, Applicants respectfully request withdrawal of the rejection of claims 77-80 and 85-92.

**CONCLUSION**

In view of the above, Applicants submit that all presently pending claims are in condition for allowance, and early indication thereof is respectfully requested. If the Examiner feels that a telephone call would expedite the prosecution of this case, the Examiner is invited to call the undersigned at (617) 248-5143.

Respectfully submitted,  
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